

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
5 February 2004 (05.02.2004)

PCT

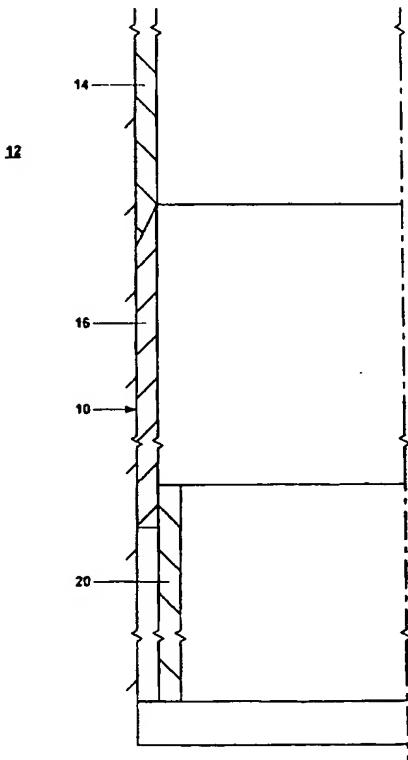
(10) International Publication Number  
WO 2004/011776 A3

(51) International Patent Classification<sup>7</sup>: E21B 7/20, 19/16, 43/10  
(74) Agents: MATTINGLY, Todd et al.; Haynes and Boone, LLP, Suite 3100, 901 Main Street, Dallas, TX 75202 (US).

(21) International Application Number: PCT/US2003/020870  
(22) International Filing Date: 2 July 2003 (02.07.2003)  
(25) Filing Language: English  
(26) Publication Language: English  
(30) Priority Data: 60/399,240 29 July 2002 (29.07.2002) US  
(71) Applicant (for all designated States except US): ENVENTURE GLOBAL TECHNOLOGY [US/US]; 16200 A. Park Row, Houston, TX 77084 (US).  
(72) Inventor; and  
(75) Inventor/Applicant (for US only): COOK, Robert, Lance [US/US]; 934 Caswell Court, Katy, TX 77450 (US).  
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GI, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.  
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, VC, VN, YU, ZA, ZM, ZW).

[Continued on next page]

(54) Title: METHOD OF FORMING A MONO DIAMETER WELLBORE CASING



(57) Abstract: A method of forming a wellbore casing that includes positioning a first wellbore casing (14) within and coupling to a borehole (10), positioning a second wellbore casing (16) within the borehole that overlaps with and is coupled to the first wellbore casing (14), positioning a tubular liner (18) within the borehole that overlaps with and is coupled to at least a portion of the second wellbore casing (16), extending the length of the borehole (10), decoupling the liner (18) from the second casing (16) and removing the liner from the borehole, and positioning a third wellbore casing (20) within the borehole that overlaps with and is coupled to the second wellbore casing (16).

WO 2004/011776 A3

BEST AVAILABLE COPY



SE, SI, SK, TR), OAPI patent (BF, BJ, CE, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:  
14 October 2004

**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**BEST AVAILABLE COPY**

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/20870

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : E21B 7/20, 19/16, 43/10  
US CL : 175/171; 166/380, 207, 208

According to International Patent Classification (IPC) or to both national classification and IPC

**RECEIVED**

OCT 22 2004

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 175/171; 166/380, 207, 208, 206, 216, 217, 277

HAYNES & BOONE LLP

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST: wellbore, casing, coupling, liner, decoupling, expanding, mono diameter

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 1,880,218 A (SIMMONS) 1 October 1930 (01.10.1930), Figures 3 and 4.	1, 3, 4, 6, 7, 11, 13, 14, 16, 17, 19, 20
A	US 6,543,552 B1 (METCALFE et al) 8 April 2003 (08.04.2003), Figures 1-5.	1, 2, 11, 12
A	US 4,483,399 A (COLGATE) 20 November 1984 (20.11.1984), Figure 2.	1, 11
A	US 6,598,678 B1 (SIMPSON et al) 29 July 2003 (29.07.2003), Figures 13 and 14.	1, 2, 11, 12
A	US 6,550,539 B2 (MAGUIRE et al) 22 April 2003 (22.04.2003), Figures 4a-4f.	1, 2, 11, 12
A	US 6,070,671 A (CUMMING et al) 6 June 2000 (06.06.2000), Figures 1-4.	3, 4, 6, 7, 9, 10, 13, 14, 16, 17, 19, 20

Further documents are listed in the continuation of Box C.

See patent family annex.

• Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

17 October 2003 (17.10.2003)

Date of mailing of the international search report

**24 MAY 2004**

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Faxsimile No. (703)305-3230

Authorized officer

*David Bagnall*

Telephone No. 703-306-4198

Form PCT/ISA/210 (second sheet) (July 1998)

**BEST AVAILABLE COPY**